ECS-8000-2G

Quad Core Intel® Core™ i7 (Broadwell-H) Fanless Embedded System with Intel® QM87 Chipset, 2 Gigabit LAN, 16 DIO, High Performance, Rugged, Extended Temperature



Features

- Quad Core Intel® Core™ i7 Mobile Processor (Broadwell-H)
- VGA/ DVI-D/ DisplayPort/ eDP Interface, up to 3 independent 4K displays
- 3 Mini PCIe Socket for 3G/ 4G/ LTE/ WiFi/ GPRS/ UMTS
- 2 External SIM Card Socket
- 2 Independent Gigabit LAN, iAMT 9.5 supported
- 16 DIO (8 DI, 8 DO)
- Fanless, -25°C to 70°C Operating Temperature
- 6V to 36V DC-in, 80V Surge Protection
- Configurable Ignition Power Control
- 2 2.5" SSD, 1 Front-access CFast Socket

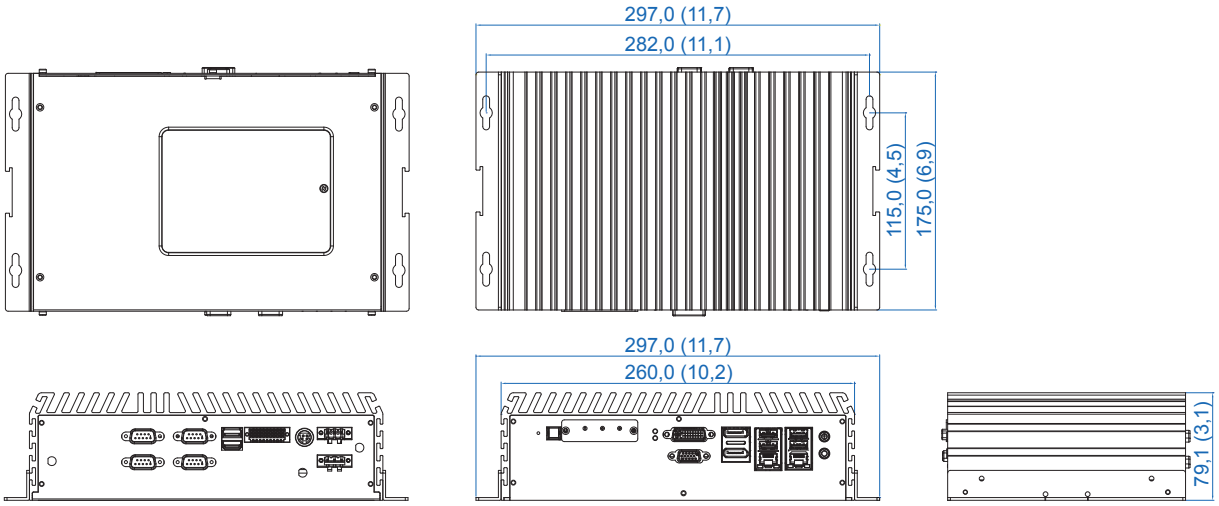
Specifications

System	
Processor	Quad Core Intel® Core™ i7-5850EQ/ i7-5700EQ (Broadwell-H)
Chipset	Intel® QM87
BIOS	AMI
SIO	IT8786E
Memory	2 DDR3L 1600MHz SO-DIMM, up to 32GB
I/O Interface	
Serial	4 COM RS-232/ 422/ 485
USB	▪ 2 USB 3.0 ▪ 4 USB 2.0 (3 External, 1 Internal)
GPIO	32 GPIO (16 Internal)
LED	Power, HDD
SIM Card	2 SIM Card Socket (External)
Expansion	
Mini PCIe	3 Mini PCIe Socket : ▪ 2 Full-size for PCIe/ USB/ External SIM Card/ mSATA ▪ 1 Half-size for PCIe/ USB
SUMIT A, B	2 SUMIT Slot (Optional)
Graphics	
Graphics Processor	▪ Intel® Iris™ Pro Graphics 6200 (5850EQ) ▪ Intel® HD Graphics 5600 (5700EQ)
Interface	▪ VGA : Up to 1920 x 1200 @ 60Hz ▪ DVI-D : Up to 1920 x 1080 @ 60Hz ▪ DisplayPort 1 : Up to 4096 x 2304 @ 60Hz ▪ DisplayPort 2 : Up to 4096 x 2304 @ 60Hz ▪ eDP : Up to 4096 x 2304 @ 60Hz
Storage	
SATA	2 SATA III (6Gbps)
mSATA	2 SATA III (Mini PCIe Type, 6Gbps)
SATA DOM	1 SATA II (3Gbps)
Storage Device	▪ 1 CFast Socket, Push-in/ Push-out Ejector ▪ 2 2.5" SSD/ HDD Bracket (Internal)
Audio	
Audio Codec	Realtek ALC892, 5.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out
Ethernet	
LAN 1	Intel® I218 Gigabit LAN supports iAMT 9.5
LAN 2	Intel® I210 Gigabit LAN

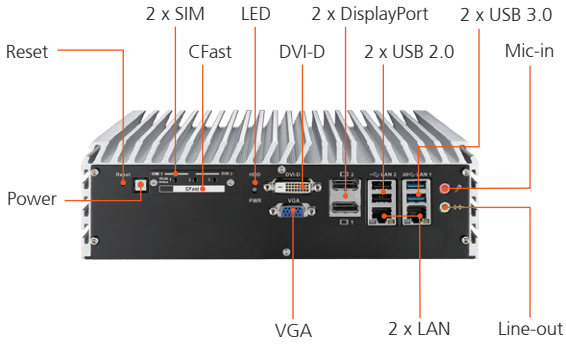
Power	
Power Input	6V to 36V, DC-in
Power Interface	▪ 3-pin Terminal Block : V+, V-, Frame Ground ▪ Mini-DIN 4-pin
Ignition Control	16 Mode (Internal)
Remote Switch	3-pin Terminal Block : On, Off, IGN
Surge Protection	Up to 80V/1ms Transient Power
Others	
TPM	Optional Infineon SLB9665 supports TPM 2.0, LPC Interface
Watchdog Timer	Reset : 1 to 255 sec./min. per step
Smart Management	Wake on LAN, PXE supported
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats.
Software Support	
OS	Windows 8, Windows 7, Linux
Mechanical	
Dimensions (W x L x H)	260mm x 175mm x 79mm (10.2" x 6.9" x 3.1")
Weight	2.8 kg (6.2 lb)
Mounting	▪ Wallmount by mounting bracket ▪ 2U Rackmount (Optional)
Environment	
Operating Temperature	-25°C to 70°C (-13°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, non-condensing
Relative Humidity	95% @ 70°C
Shock	▪ IEC 60068-2-27 ▪ SSD : 50G @ wallmount, Half-sine, 11ms
Vibration	▪ IEC 60068-2-64 ▪ SSD : 5Grms, 5Hz to 500Hz, 3 Axis
EMC	CE, FCC, EN 50155, EN 50121-3-2

Dimensions

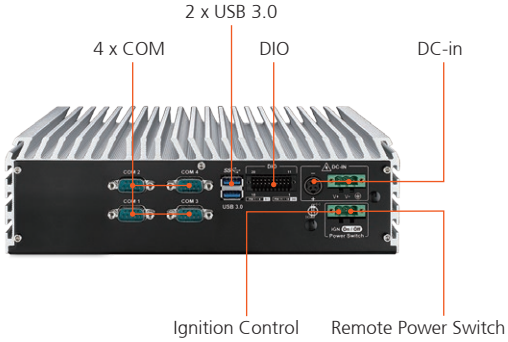
Unit : mm/ inch



Front I/O



Rear I/O



Order Information

ECS-8000-2G850Q	ECS-8000 Fanless Embedded System, Quad Core 5th Gen Intel® Core™ i7-5850EQ Processor (Broadwell-H), 2 GbE LAN, 4 COM, 7 USB, 2 SIM, 32 GPIO
ECS-8000-2G700Q	ECS-8000 Fanless Embedded System, Quad Core 5th Gen Intel® Core™ i7-5700EQ Processor (Broadwell-H), 2 GbE LAN, 4 COM, 7 USB, 2 SIM, 32 GPIO
M340L-W28M1	Vecow DDR3L 4GB 1333/ 1066 MHz RAM, Wide Temperature -40°C to +85°C
DDR3L4G	Certified DDR3L 4G RAM
DDR3L8G	Certified DDR3L 8G RAM
PWA-120W	120W, 24V, 90VAC to 264VAC Power Adapter with 3-pin Terminal Block
PWA-120WM4P	120W, 24V, 90VAC to 264VAC Power Adapter with 4-pin Mini-DIN Connector
PWA-160W-WT	160W, 24V, 85VAC to 264VAC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
TMBK-20P-100	Terminal Block 20-pin to SCSI, 100cm
TMBK-20P-500	Terminal Block 20-pin to SCSI, 500cm
TMB-SCSI-20P	Terminal Board with One 20-pin SCSI Connector and DIN-Rail Mounting
VESA Mount	VESA Mounting Kit
DIN-RAIL	DIN Rail Kit
Rack Mount	2U Rackmount Kit
3G Module	Mini PCIe 3G/GPS Module with Antenna
4G Module	Mini PCIe 4G/GPS Module with Antenna
WiFi & Bluetooth Module	Intel® Mini PCIe WiFi & Bluetooth Module with Antenna